

Epidemiology poster session 6: Preventive intervention: Partner notification

P1-S6.50 CHLAMYDIA PARTNER NOTIFICATION FOR ADOLESCENT FEMALES, SAN FRANCISCO, 2010

doi:10.1136/sextrans-2011-050108.274

R Kohn, J McCright, B Ivory, A Snell. *San Francisco Department of Public Health, San Francisco, USA*

Background In 2009, African American women 15 to 19 years of age had the highest rate of chlamydia of any population in San Francisco (10 762.13 cases per 100 000 residents per year). Screening and education efforts had not succeeded in lowering rates in this population. Previous research suggests that adolescents may have fewer partners and fewer anonymous encounters than other patients with whom we conduct partner notification. We evaluated a pilot program of contact tracing aimed at male partners of adolescents women diagnosed with chlamydia living in selected neighbourhoods.

Methods Residential addresses for all reported females under 20 years of age reported with a Chlamydia infection were geocoded. Cases residing in neighbourhoods with the highest rates of Chlamydia in 2009 were assigned to a health worker for partner notification. Cases were interviewed at least two weeks after being tested in order to give providers time to disclose the results. Names of male partners during the previous three months were collected along with locating information. The total number of partners for each woman (including unnamed partners) was also recorded. Male partners were contacted by the health worker; if partners had not been tested or prophylactic ally treated, they were tested for Chlamydia and treated if positive.

Results Between 1 June 2010 and 31 December 2010, 296 Chlamydia cases were reported among women under 20 years of age. Of these, 106 (35.8%) resided in the priority neighbourhoods. Only 64 cases (60.4%) were located and interviewed; all but one of the remaining cases were not locatable. The cases claimed a total of 96 male partners, with 66% claiming just one partner in the previous 3 months, and only two cases claiming more than three partners. However, only 39 partners (40%) were named, including 11 partners residing out of jurisdiction, and 4 who had already been treated by the time they were located. Eleven (11) male partners were tested, and only 2 were positive for Chlamydia. The greatest barrier to contacting the cases and their male partners was cell phones numbers that were disconnected by the time we needed to use them.

Conclusion While women in this population have fewer anonymous encounters than other populations targeted using partner notification, few cases among male partners were brought to treatment.

Partner notification for adolescent females will likely have minimal impact on chlamydia transmission.

Epidemiology poster session 6: Preventive intervention: ARV

P1-S6.51 ANTIRETROVIRAL THERAPY, SEXUAL BEHAVIOUR, AND THEIR SIMULATED IMPACT ON HIV EPIDEMIOLOGIC TRENDS IN UGANDA

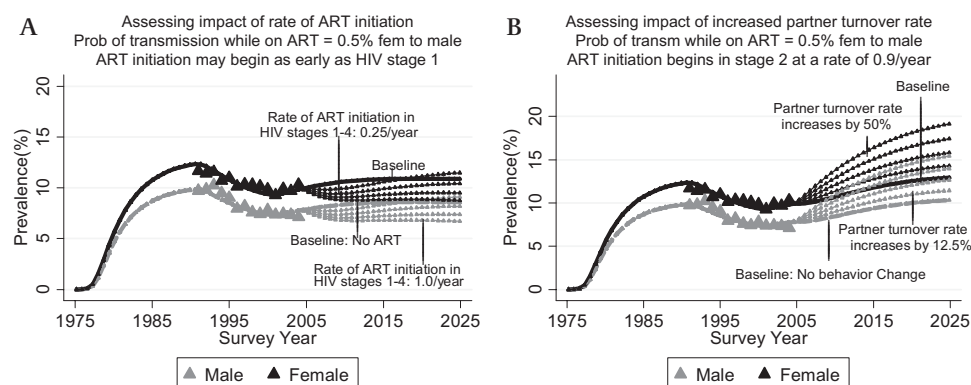
doi:10.1136/sextrans-2011-050108.275

¹L A Shafer, ²R Nsubuga, ³R Chapman, ³K O'Brien, ²B Mayanja, ³R White. ¹University of Manitoba, Winnipeg, Canada; ²Medical Research Council, Uganda Virus Research Institute, Entebbe, Uganda; ³London School of Hygiene and Trop Med, London, UK

Background Debate exists concerning the potential impact of ART on the HIV epidemic in Africa. We combine empirical evidence for sexual behaviour change in response to ART in a Ugandan cohort, with mathematical modelling, to examine the likely impact of ART on the HIV epidemic, accounting for potential behaviour change.

Methods Cohort participants are surveyed every 3 months on sexual behaviours. ART rollout began in 2004. Using regression, we examined potential associations between timing of ART initiation and sexual behaviour among HIV-infected, and timing of ART availability and sexual behaviour among HIV-uninfected. We then used a compartmental mathematical model to assess the impact of ART on HIV epidemiologic trends, under varying assumptions about rates of initiating ART and behaviour change. The model has been described previously in peer-reviewed literature.

Results We found no evidence of increased risk behaviour after ART initiation to levels higher than 2 years before initiation. There is some evidence of rising risk behaviour among HIV-uninfected people in response to ART availability. Among HIV-uninfected, the mean number of casual partners in the past 3 months fell from 0.02 in 2002 to 0.01 by 2004 and then rose to 0.03 by late 2008 (p for change in trend from declining to rising numbers of casual partners over the period 2002–2008=0.030). The mean number of new partners in the past 3 months fell from 0.13 in early 2002 to 0.02 in the late 2004. By 4th quarter of 2008, the number of new partners in the past 3 months had risen to 0.20 (p=0.058). Regardless of changing sexual behaviour, the model suggests that ART will reduce HIV incidence, but increase prevalence. This occurs even when ART initiation begins in HIV stage 2 (~3 months after infection) and 90% of HIV-infected are on ART and the probability of transmission while on ART declines greatly (right panel of Abstract P1-S6.51 Figure 1 baseline of no ART displayed in left panel). The conditions required for ART to reduce prevalence had to be more extreme than this (left panel).



Abstract P1-S6.51 Figure 1 Sensitivity analyses of dual impact of ART and potential behaviour change on HIV prevalence.